# Me Too

## Education

**Ph. D., Mechanical Engineering** — Johns Hopkins University
Expected May 2009
Specialization: Human Exploration
Advisor: Dr. xxx

**M.S., Mechanical Engineering** — Johns Hopkins University
2004-2006
Specialization: Robotics
Advisor: Dr. xxx

**B.S., Mechanical Engineering**, *Cum Laude Society* — University of Pennsylvania
2000-2004
Thesis: Determination of Human Dynamics in a Pivot Turn

## Research Experience

**Proprioceptive Feedback for Prosthetics** — Johns Hopkins University
May 2006-Present
*Haptic Exploration Lab*
Created robotic system and ran human subject studies to investigate the importance of proprioception during targeting and stiffness discrimination tasks. Results showed proprioception to improve success rate of performance during targeting task. Stiffness discrimination data is currently being analyzed.

**Foot Feedback for Prosthetics** — Johns Hopkins University
May 2006-Present
*Haptic Exploration Lab*
Currently designing experimental setup and human subject study to investigate the viability of using the foot as a location for providing vibratory feedback to an upper-limb prosthesis user.

**Human Exploration** — Johns Hopkins University
September 2004-March 2007
*Haptic Exploration Lab*
Created robotic system and designed human subject study to investigate human exploration methods used during knob turning task. Results found that subjects tend to use finger dexterity during knob-turning motions when possible, a change in the knob turning difficulty will cause a change in the knob-turning method used, and subjects apply forces and torques in directions that are not conducive to the knob-turning task.

**Analysis of Human Movement** — University of Pennsylvania
January 2003-May 2004
*Vestibular Ocular Motor Research Laboratory*
Revised a pivot turn model into a more mathematically and anatomically accurate one, did biomechanical testing, and analyzed the data. I completed this project by creating a simulation that supported my hypothesized pivot turn model.

**Determination of Flow Patterns in Uterine Model**
May-August 2004 — Tel Aviv University
*Biofluids Lab*, In Vitro Fertilization
Performed biofluid tests to allow analysis of various flow patterns in a uterine model upon injection of a dye. My contribution finished at the end of the summer, however this project concluded with a publication in Human Reproduction, in which I was referenced in the acknowledgments.

## Teaching Experience

**Undergraduate Student Mentor** — Johns Hopkins University
October 2007 - Present
Topic: Haptics Research
Mentored a Johns Hopkins University undergraduate student in the creation of a human subject study for a foot haptics experiment.

**Undergraduate Student Mentor** — Johns Hopkins University
January 2007 - May 2007
Topic: Haptics Research
Mentored a Johns Hopkins University undergraduate student in the design of a proprioceptive feedback device.

**High School Student Mentor** — Johns Hopkins University
June - August 2006
Topic: Haptics Research
Mentored a high school student in teleoperation research.

**Teaching Assistant** — Johns Hopkins University
January - May 2006
Course: Design and Analysis of Dynamic Systems
Primary Instructor: Dr. Allison Okamura
Conducted bimonthly Problem Solving Sessions along with graded and wrote up solutions to problem sets and weekly held TA office hours.

**High School Student Mentor** — Johns Hopkins University
January - May 2006
Topic: Haptic Museum Display
Mentored a High School student in the creation of an educational haptic device to be displayed in a museum.

**Academic Tutor** — University of Pennsylvania
September 2002 - May 2003
Topic: Calculus I, II, and Hebrew

## Awards/ Achievements

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|---|---|
| NSF Graduate Research Fellowship | 2006 - 2009 |
| Dean's Fellowship | 2004 - 2009 |
| Jacob M. Abel Undergraduate Summer Research Internship | Summer 2003 |
| John & Lillian Neff Scholarship | 2000 - 2004 |

## Referenced Conference Publications

K. J. Kuchenbecker, N. Gurari, and A. M. Okamura, *Effects of Visual and Proprioceptive Motion Feedback on Human Control of Targeted Motion.* 10th International Conference on Rehabiliation Robotics (ICORR), pp. 513-524, 2007.

*N. Gurari and A. M. Okamura, *Human Performance in a Knob-Turning Task.* Second Joint Eurohaptics Conference and Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems (World Haptics), pp. 96-101, 2007.

K. J. Kuchenbecker, N. Gurari, and A. M. Okamura, *Quantifying the Value of Visual and Haptic Position Feedback During Force-Based Motion Control.* Second Joint Eurohaptics Conference and Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems (World Haptics), 2007.

*Oral presentation was given at World Haptics Conference.

## Professional Activities

**Leadership Activities**

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|---|---|
| LCSR Graduate Student Committee Holiday Social Organizer | December 2007 |
| Haptics Lab Representative, LCSR Graduate Student Committee | April 2007 - Present |
| Panel Chair, Women of Whiting (WoW) | January 2007 - Present |
| Peer Advisor, Women of Whiting (WoW) | Fall 2006 - Present |
| Social Chair, Women of Whiting (WoW) | Fall 2006 |
| Manager of Human Subjects Protocols, Haptic Exploration Lab | 2006 - 2007 |
| Demo Coordinator, Haptic Exploration Lab | 2005 - 2006 |
| Web Master, Haptic Exploration Lab | 2004 - 2005 |
| Sophomore Class Representative, Society of Bioengineering (SoBE) | 2001 - 2002 |

**Technical Outreach Events**

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|---|---|
| Ready, Set, Design (http://www.jhu.edu/∼asme/readysetdesign) | February 2006 |
| Surgical Lego Competition | February 2005 |
| New Bike's Works Volunteer (http://www.neighborhoodbikeworks.org/) | 2001 - 2002 |
| Women of Whiting WISE Panel Speaker | October 19, 2006 |
| Computer Mania Day Break Out Session Leader | April 9, 2005 |

**Workshops Attended**

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| JHU Teaching Assistant Training Workshops | Spring 2006 |

**Technical Reviews (with Advisor)**

ICRA 2007
Eurohaptics 2006

**Professional Memberships**

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|---|---|
| Institute of Electrical and Electronics Engineers (IEEE) | January 2006 - Present |
| Women of Whiting, WoW | September 2005 - Present |
| CISSRS Student Computer Integrated Surgery Society | 2004 - 2005 |
| Pi Tau Sigma, Mechanical Engineering Honor Society | April 2004 |
| Society of Bioengineering (SoBE) | 2001 - 2002 |

## Extracurricular Activities

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|---|---|
| Salsa Dancing | May 2007 - Present |
| JHU Capoeira Member, *Instructor, Website Coordinator, and Leader* | September 2004 - Present |
| ASCAB Penn Capoeira, President | 2002 - 2004 |
| Club Swim Team | 2002 - 2002 |
| Marathon Training | Fall 2002 |
| Scuba Diving Certification | Fall 2001 |
| Varsity Track Team | March - May 2001 |
| Varsity Gymnastics Team | 2000 - 2001 |

## Contact Information

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